

CLAIMS

What is claimed is:

1. A circuit arrangement for remotely powering a plurality of local systems, comprising:
 - a power converter receiving remote power from a central exchange;
 - a processing circuit connected downstream of the power converter and providing a supply voltage to the plurality of local systems via a first current path;
 - an energy storage unit for providing a startup energy of the plurality of local systems; and
 - a plurality of switches arranged between the energy storage unit and the plurality of local systems, wherein each switch electrically connects a different one of the plurality of local systems to the energy storage unit via a second current path.
2. The circuit arrangement of claim 1, wherein the local systems comprise network termination units.
3. The circuit arrangement of claim 1, and further comprising a control circuit for controlling the plurality of switches.

4. The circuit arrangement of claim 3, wherein the control circuit comprises a timing circuit.
5. The circuit arrangement of claim 3, wherein the control circuit comprises a microprocessor.
6. The circuit arrangement of claim 3, wherein the control circuit is connected to an output of the energy storage unit.
7. The circuit arrangement of claim 1, wherein the energy storage unit is connected to the power converter and further including a decoupling element arranged between the energy storage unit and an output of the power converter or the processing circuit.
8. The circuit arrangement of claim 7, wherein the decoupling element comprises a resistor.
9. The circuit arrangement of claim 7, wherein the decoupling element comprises a current limiter.
10. The circuit arrangement of claim 7, wherein the decoupling element is controllable.

11. The circuit arrangement of claim 10, and further comprising a control circuit for controlling the plurality of switches and the controllable decoupling element.
12. The circuit arrangement of claim 11, wherein the control unit is connected to a measuring unit that measures a power received by the energy converter.
13. The circuit arrangement of claim 1, wherein the switches are formed by MOSFETs.
14. A method for remotely powering a plurality of local systems from a local unit which itself is remotely powered from a central exchange, said local unit having a circuit arrangement which includes a power converter receiving remote power from a central exchange, a processing circuit connected downstream of the power converter and providing a supply voltage to the plurality of local systems via a first current path, an energy storage unit for providing a startup energy of the plurality of local systems, a plurality of switches arranged between the energy storage unit and the plurality of local systems, wherein each switch electrically connects a different one of the plurality of local systems to the energy storage unit via a second current path, the method comprising the steps of:
opening all switches when the central system or the local unit is started;
charging the energy storage unit;

closing the switches associated with the local systems one at a time to successively connect a local system with the energy storage unit for successively starting the local system; and
recharging the energy storage unit before each of the successive starting operations.

15. The method of claim 14, wherein the local systems comprise network termination units.
16. The method of claim 14, and further comprising the steps of determining the charging state of the energy storage unit and determining from the charging state a time interval between two successive starting operations.
17. The method of claim 14, wherein the energy storage unit is charged via a decoupling element arranged between the energy storage unit and an output of the power converter or the processing circuit.
18. The method of claim 17, and further comprising the steps of determining the remote power available from the central exchange power and controlling the decoupling element based on the determined available power.